REMARKS

Claims 1-20 are pending in this application, claims 18-20 having been withdrawn from consideration. By this Amendment, claims 1 and 6 are amended. Support for the amendments to claims 1 and 6 can be found in the specification as originally filed, for example, at page 14, lines 13-20; page 18, line 5 - page 19, line 1; and page 21, lines 4-17; and in original claims 1 and 6. No new matter is added by these amendments.

Also by this Amendment, the specification is amended to correct minor informalities therein. No new matter is added by these amendments.

Applicants appreciate the courtesies shown to Applicants' representative by Examiner RoDee in the July 13 personal interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

I. Telephone Restriction Requirement

A telephone requirement for restriction was made in connection with the above-identified patent application on April 8, 2005. In response to that telephone requirement, a provisional election was made, on April 12, to prosecute Group I, claims 1-17. Said provisional election was made with traverse.

Applicants respectfully submit that the election of Group I, claims 1-17 was affirmed by the Confirmation of Telephone Election filed on April 12.

It is also respectfully submitted that the subject matter of all claims is sufficiently related that a thorough search for the subject matter of any one Group of claims would encompass a search for the subject matter of the remaining claims. Thus, it is respectfully submitted that the search and examination of the entire application could be made without serious burden. See MPEP §803 in which it is stated that "if the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions" (emphasis

added). It is respectfully submitted that this policy should apply in the present application in order to avoid unnecessary delay and expense to Applicants and duplicative examination by the Patent Office.

Applicants further respectfully submit that, because claims 1-17 are in condition for allowance for the reasons set forth below, claims 18-20 should be rejoined and considered on the merits at this time.

Thus, withdrawal of the Restriction Requirement and rejoinder of claims 18-20 are respectfully requested.

II. Claim Rejections Under 35 U.S.C. §112

A. First Paragraph

The Office Action rejects claims 1-17 under 35 U.S.C. §112, first paragraph, as not being reasonably enabled by the specification as originally filed. In particular, the Office Action asserts that the specification does not provide enablement for a polymer formed from a monomer having a "formal group" in any of the R positions.

Applicants respectfully submit that the term "formal group" in the specification and claims as originally filed indicates a "formyl" or "methylal" group, that is, a functional group derived from formaldehyde. Applicants respectfully submit that one of ordinary skill in the art would have understood the term "formal group" to mean a formyl group for at least the following reasons. First, formaldehyde is the common name of methylaldehyde (COH_2) and one of ordinary skill in the art would be familiar with this term and the chemical structure associated with it. Second, the IUPAC suffix that indicates an aldehyde group is "–al." Thus, it would have been obvious to one of ordinary skill in the art that the term "formal group" in the specification and claims should be understood to mean "formyl group," and that pending claims 1-17 are fully supported and enabled by the specification as originally filed. However,

in the interest of clarity, the specification and claim 1 are amended herein to replace the term "formal group" with the correct term "formyl group."

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Second Paragraph

The Office Action rejects claims 6 and 7 under 35 U.S.C §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention. In particular, the Office Action asserts that claims 6 and 7 define a toner based on an "indefinite and unknown process condition." While Applicants do not necessarily agree with this rejection, claim 6 has been amended herein to more distinctly claim the subject matter therein. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

III. Claim Rejections Under 35 U.S.C. §102

The Office Action rejects claims 1, 2, 4-8, 14 and 16 under 35 U.S.C. §102(e) over U.S. Patent Application Publication No. 2003/0099894 to Tsubuko et al., considered with W.A. Lee & R.A. Rutherford, The Glass Transition Temperatures of Polymers, in Polymer Handbook, Second Edition, III-143 - III-179 (J. Brandrup & E.H. Immergut eds., John Wiley & Sons). The Office Action rejects claims 1-5, 8 and 13 under 35 U.S.C. §102(b) over Japanese Patent Application Publication No. 09-185182 to Okuto et al. The Office Action rejects claims 1-5, 8, 11, 14, 16 and 17 under 35 U.S.C. §102(b) over Japanese Patent Application Publication No. 11-015197 to Izumi et al. The Office Action rejects claims 1-8 under 35 U.S.C. §102(b) over U.S. Patent No. 5,262,265 to Matsunaga et al. Applicants respectfully traverse these rejections.

Independent claim 1, from which claims 2-8, 11, 13, 14, 16 and 17 directly or indirectly depend, sets forth a "toner for developing electrostatic images, comprising as a

main component thereof a binder resin having a copolymer consisting of a combination of a high Tg monomer having a structure represented by the following structural formula (1) and a glass transition temperature of 50°C or higher, a low Tg monomer having a structure represented by the following structural formula (2) and a glass transition temperature of lower than 50°C, and a hydrophilic monomer having a structure represented by the following structural formula (3): ... wherein R^1, R^2 and R^3 independently represent a hydrogen atom, an alkyl group, an alkylester group, an alkylether group, a perfluoroalkyl group, a methoxy group, an ethoxy group, a halogen atom, a carbazole group, a pyrrolidone group, a formyl group, a cyclohexyl group, an alkyl group having a functional group, or an alkylester group having a functional group, $R^{1'}$ and $R^{2'}$ independently represent an alkyl group, an alkylester group, an alkylether group, a perfluoroalkyl group, a methoxy group, an ethoxy group, a halogen atom, a carbazole group, a pyrrolidone group, a formyl group, a cyclohexyl group, an alkyl group having a functional group, or an alkylester group having a functional group, and $R^{3'}$ represents a hydrophilic group."

The Office Action takes the position that Tsubuko in combination with Diamond's teachings regarding the T_g of stearyl methacrylate, Izumi, Okuto and Matsunaga each teach all of the features of claim 1, and various of its dependent claims, because these references teach a toner comprising a resin including a high T_g monomer that allegedly corresponds to claimed structural formula (1), a low T_g monomer that allegedly corresponds to claimed structural formula (2) and a hydrophilic monomer that allegedly corresponds to claimed structural formula (3). Applicants respectfully disagree.

Each of the cited references teaches a copolymer that includes a high T_g monomer, a low T_g monomer, a hydrophilic monomer and at least one additional monomer. For example, Tsubuko teaches, in Examples 3, 7 and 13 (cited in the Office Action), copolymers of (1) either lauryl methacrylate (Example 3) or stearyl methacrylate (Examples 7 and 13) (high T_g

monomers), methyl methacrylate (a low T_g monomer), methacrylic acid (a hydrophilic monomer) and glycidyl methacrylate. *See* Tsubuko, paragraphs [0165]-[0173], [0227]-[0230]. Glycidyl methacrylate is not a high T_g monomer, a low T_g monomer or a hydrophilic monomer as set forth in claim 1. Similarly, Okuto and Matsunaga teach copolymers that include monomers containing either glycidyl or β-methylglycidyl groups, which are not high T_g monomers, low T_g monomers or hydrophilic monomers as set forth in claim 1. *See* Okuto, Abstract; paragraphs [0008], [0012], [0031]-[0033]; Matsunaga; Abstract; col. 5, lines 43-56.

Izumi also teaches a copolymer that includes a high T_g monomer, a low T_g monomer, a hydrophilic monomer and at least one additional monomer; in particular, Izumi teaches a styrenic copolymer. *See* Izumi, Abstract. Matsunaga teaches, in addition to monomers containing either glycidyl or β-methylglycidyl groups, styrenic monomers. *See* Matsunaga, col. 3, lines 48-56; col. 4, line 38 - col. 5, line 4. Styrenic monomers are not high T_g monomers, low T_g monomers or hydrophilic monomers as set forth in claim 1.

That is, the cited references each teach copolymers that include a high T_g monomer, a low T_g monomer, a hydrophilic monomer and at least one additional monomer. However, none of the cited references teaches a copolymer that includes only a high T_g monomer, a low T_g monomer and a hydrophilic monomer. Because none of the cited references teaches a "binder resin having a copolymer consisting of a combination of a high Tg monomer having a structure represented by the following structural formula (1) and a glass transition temperature of 50°C or higher, a low Tg monomer having a structure represented by the following structural formula (2) and a glass transition temperature of lower than 50°C, and a hydrophilic monomer having a structure represented by the following structural formula (3)," as set forth in independent claim 1, Applicants respectfully submit that claim 1 is patentable over each of the cited references.

For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the rejections are respectfully requested.

IV. Claim Rejections Under 35 U.S.C. §103

The Office Action rejects claims 11, 12 and 14 under 35 U.S.C. §103(a) over U.S. Patent No. 5,262,265 to Matsunaga et al. in view of Handbook of Imaging Materials, 155-164, 173-187 (Arther S. Diamond & David Weiss eds., Marcel-Dekker, Inc. 2001). The Office Action rejects claim 9 under 35 U.S.C. §103(a) over U.S. Patent No. 5,262,265 to Matsunaga et al. in view of U.S. Patent No. 2,297,691 to Carlson. The Office Action rejects claims 9, 10 and 15 under 35 U.S.C. §103(a) over U.S. Patent No. 5,262,265 to Matsunaga et al. in view of U.S. Patent No. 2,297,691 to Carlson, as applied to claim 9, and further in view of U.S. Patent No. 6,214,510 to Kojima et al. Applicants respectfully traverse these rejections.

Claims 9-12, 14 and 15 depend from claim 1, which is as set forth above.

As discussed above, Matsunaga, the primary reference in all of the rejections under §103, does not teach, nor does it suggest, a "binder resin having a copolymer consisting of a combination of a high Tg monomer having a structure represented by the following structural formula (1) and a glass transition temperature of 50°C or higher, a low Tg monomer having a structure represented by the following structural formula (2) and a glass transition temperature of lower than 50°C, and a hydrophilic monomer having a structure represented by the following structural formula (3)," as set forth in independent claim 1, from which claims 9-12, 14 and 15 depend.

The secondary references, Diamond, Carlson and Kojima, are cited as disclosing various features of dependent claims 9-12, 14 and 15. Specifically, Diamond is cited for its disclosures relating to toner particle size (claims 11 and 12) and the inclusion of release agents in toners (claim 14). Carlson is cited for its disclosures relating to shape factor and

surface index (claim 9). Kojima is cited for its disclosures relating to surface property index (claim 10), SF1 (claim 9) and colorant particle sizes (claim 15). However, none of the secondary references teach or suggest binder resins including a copolymer as set forth in claim 1. That is, the secondary references do not teach or suggest a "copolymer consisting of a combination of a high Tg monomer having a structure represented by the following structural formula (1) and a glass transition temperature of 50°C or higher, a low Tg monomer having a structure represented by the following structural formula (2) and a glass transition temperature of lower than 50°C, and a hydrophilic monomer having a structure represented by the following structural formula (3)," as set forth in independent claim 1. Because neither Matsunaga nor the secondary references teach or suggest the copolymer of independent claim 1, Applicants respectfully submit that dependent claims 9-12, 14 and 15 are patentable over Matsunaga, Diamond, Carlson and Kojima, individually and in combination.

For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the rejections are respectfully requested.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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JAO:JMS/jms

Date: October 18, 2005

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